

# INTACT FRESH WATER SYSTEMS BUILD CLIMATE RESILIENCE



TESTIMONY TO SENATE NATURAL RESOURCES & ENERGY COMMITTEE

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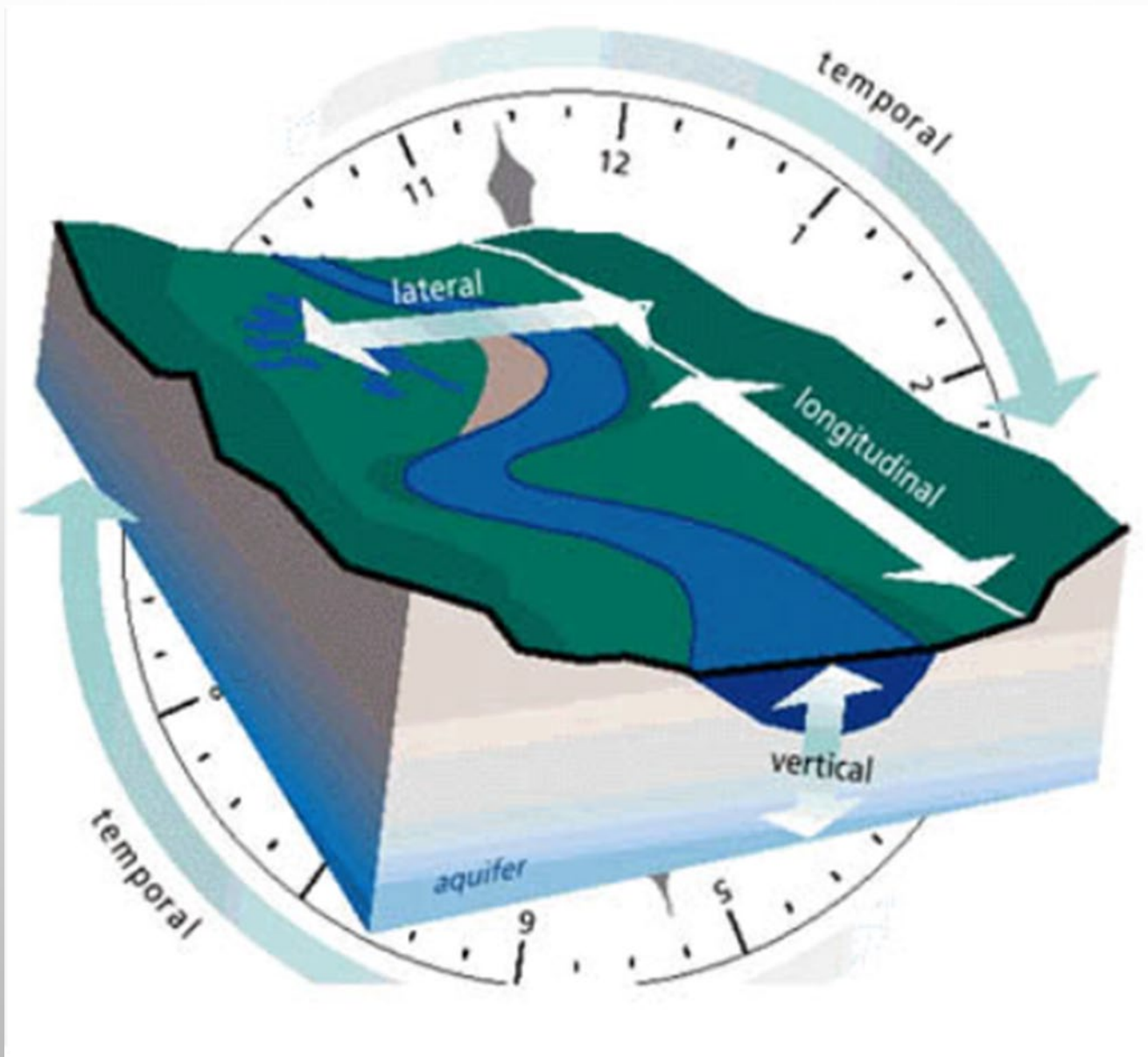
# INTACT FRESH WATER SYSTEMS BUILD CLIMATE RESILIENCE

**BY IMPROVING PROTECTIONS AND RESTORING WETLANDS AND RIVERS, WE CAN IMPROVE FLOOD RESILIENCE.**

THE VT CLIMATE ACTION PLAN, THE STATE HAZARD MITIGATION PLAN, AND THE LAKE CHAMPLAIN TMDL ADDRESS THESE CONCEPTS:

- PROMOTE HEALTHY, CONNECTED RIVER CORRIDORS, FLOODPLAINS, AND WETLANDS
- PROTECT THE ADAPTIVE CAPACITY OF NATURAL RESOURCES
- SUSTAIN, RESTORE AND ENHANCE THE HEALTH AND FUNCTION OF VERMONT'S LANDS AND WATERS
- SHAPE LAND USE AND DEVELOPMENT THAT SUPPORTS CARBON SEQUESTRATION AND STORAGE, CLIMATE RESILIENCE AND ADAPTATION AND NATURAL AND HUMAN COMMUNITIES.
- INCREASE FLOOD RESILIENCE OF THE NATURAL AND BUILT ENVIRONMENT

# WATERSHED SCIENCE



# WE NEED AN IMPROVED STATEWIDE APPROACH TO PROTECTING OUR WATERSHEDS

- FOR PUBLIC SAFETY
- TO REDUCE ECONOMIC BURDEN
- TO IMPROVE WATER QUALITY AND HABITAT DIVERSITY - COMMUNITY RESILIENCE



# WETLAND SCIENCE

- WETLANDS ARE THOSE UNIQUE AREAS WHERE LAND AND WATER INTERSECT
- THE CLEAN WATER ACT WAS ENACTED TO PROTECT AND PRESERVE THE FUNCTIONS WETLANDS PROVIDE TO SOCIETY AT LARGE
- NET GAIN VALUE OF WETLAND ECOSYSTEM SERVICES – LEAVE WETLANDS IN A BETTER STATE FOR PEOPLE AND NATURE



# WETLAND SCIENCE



**10 FUNCTIONS and VALUES**

# WETLAND CONCERNS

- LACK OF UNDERSTANDING OF VT WETLANDS – WE NEED BETTER DATA!
- PHYSICAL DISRUPTION TO THE WETLAND FUNCTION
- RATE OF WETLAND LOSS IS SIGNIFICANT
- CAPACITY



# WETLANDS POLICY

- STATE POLICY FOR A NET GAIN OF WETLAND ACREAGE
- WETLANDS IMPACTED FROM DEVELOPMENT ARE RESTORED 2:1 RATIO
- HIGH QUALITY NWI MAPPING STATEWIDE BY 2030 WITH A GROUND TRUTHING COMPONENT – (UPDATES EVERY 5YR)
- VSWI UPDATED ANNUALLY STARTING JANUARY 1, 2025
- ANNUAL WETLAND REPORT ON WETLAND STATUS AND TRENDS





# RECONNECTED FRESHWATER SYSTEM



Connolly Pond Dam Removal, Photo by Marc Cimonetti

# DAM RIVER SCIENCE



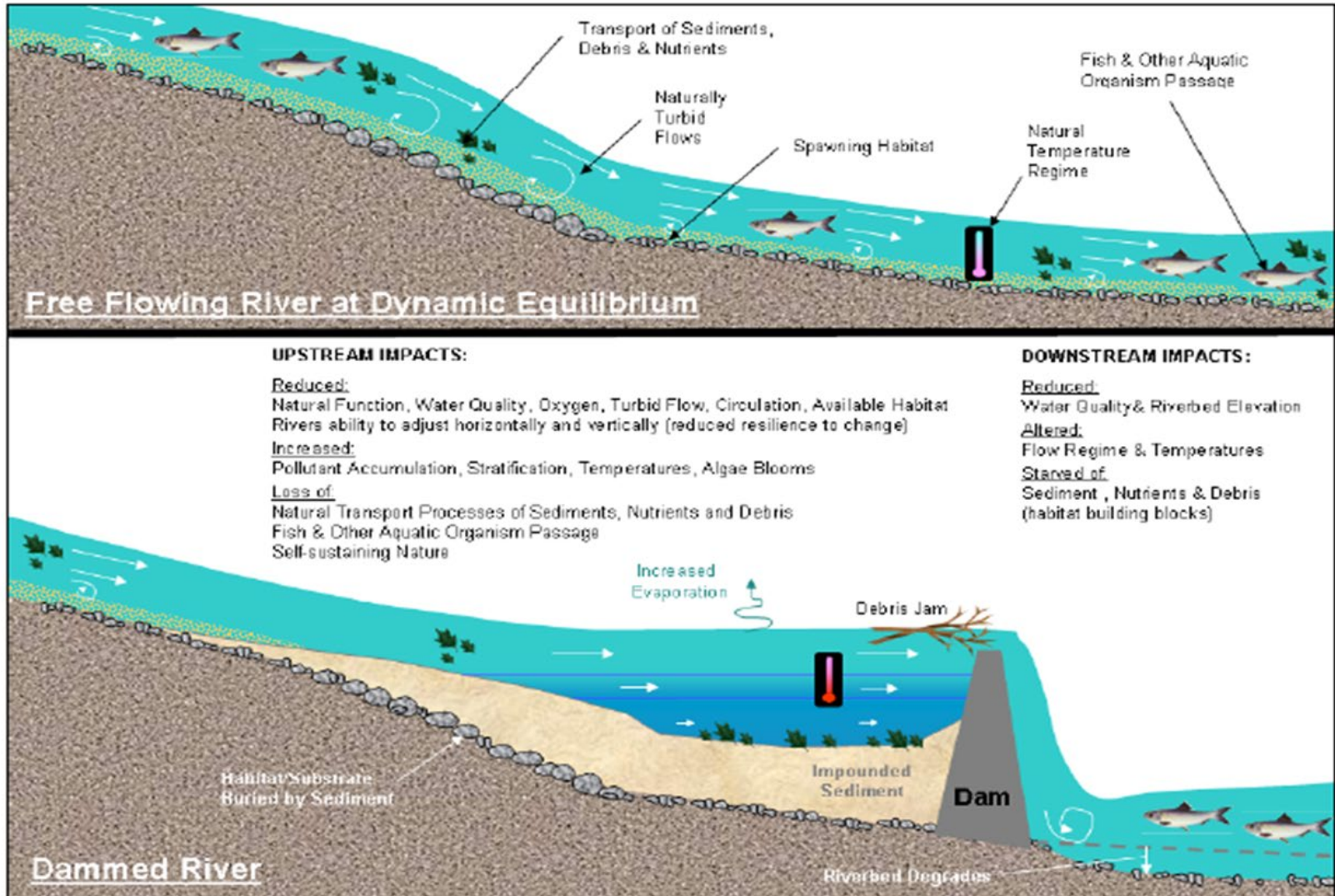
Let Them Flow

*Wild and Free*



# DAMS DISRUPT RIVER FUNCTION

- RIVER CONTINUUM - BIOTA-FLOW-HABITAT...



Graphic courtesy of American Rivers

# DAM CONCERNS

- PUBLIC SAFETY
- EXACERBATES FLOODING
- LOSS OF RIVER/  
RIPARIAN/FLOODPLAIN  
FUNCTION
- PUBLIC HEALTH/WATER  
QUALITY
- BIODIVERSITY
- ECONOMIC BURDEN
- CAPACITY



# DAM CONCERNS



Before



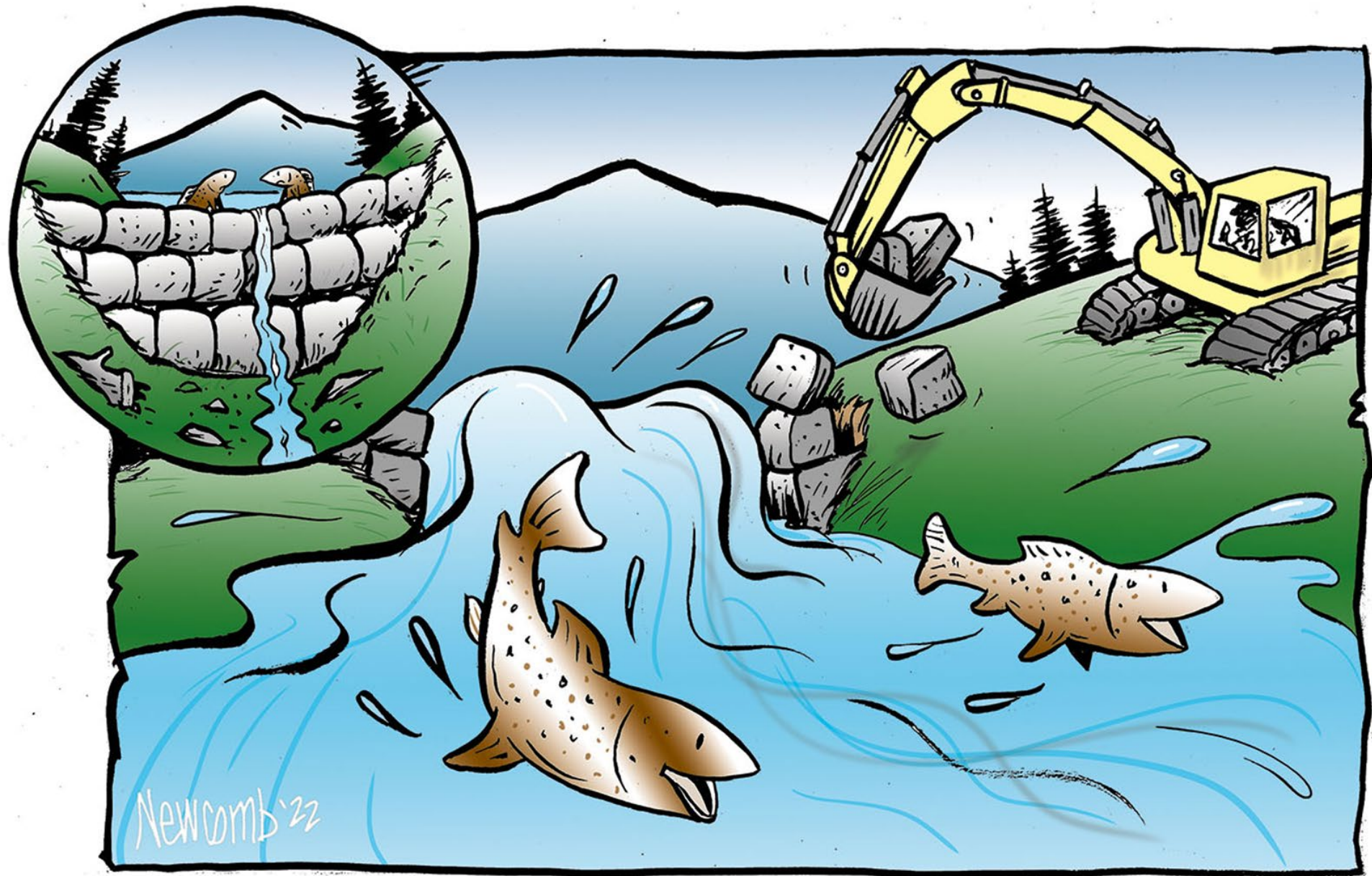
After

# DAM SAFETY POLICY

REMOVE DERELICT DAMS AND  
SAFELY MAINTAIN AND  
ROUTINELY INSPECT REMAINING  
DAMS:

- UNSAFE DAM PETITION
- INSPECTION OF DAMS
- DAM SAFETY REVOLVING  
LOAN FUND
- LIABILITY FOR DAM  
LANDOWNERS





**FREE VERMONT RIVERS!**